Salmon August Reforestation Project Proposal

Background

The Salmon and Scott River Ranger District of the Klamath National Forest is proposing treatments to reforest stands that burned within the Wallow Fire boundary (see Appendix A). The Project is located about 5 miles northwest of Sawyers Bar, CA and is within the Cherry Creek and Specimen Creek drainages of the Salmon River Watershed. The legal location is: Township (T) 41 North (N), Range (R) 12 West (W), Sections 25-37 and 35-36; T41N R11W, Section 31; T40N R11W, Section 6-7; T40N R12W, Sections 1 and 12 (Mount Diablo Meridian).

The Salmon August Complex was comprised of a series of lightning ignited fires on the Salmon River Ranger District of the Klamath National Forest burning a total of 65,875 acres during the summer of 2017. The Wallow fire was included in the Salmon August Complex and primarily burned within the Marble Mountain Wilderness. About 85 percent of the Wallow Fire burned in wilderness. Outside of the wilderness, the Wallow Fire burned within young plantations, shrub and oak stands, and heavily timbered stands with a shrub understory. This project proposal focuses on the portion of the Wallow Fire that burned outside of the Wilderness Area, see table 1 below for Management Areas within the project boundary.

Management Direction

The 1995 Klamath National Forest Land and Resource Management Plan (Forest Plan, as amended) includes Standards and Guidelines from the Northwest Forest Plan. The Forest Plan provides forest-wide and Management Area (MA) direction at the project level, as shown in Table 1 below.

Table 1: Management Areas within the project area.

Management Area	**Pages in Forest Plan***	**Acres within Project Area**	**Percentage of Project Area**
MA 5 – Special Habitat (Late Successional Reserve [LSR])	4-82 to 4-89	1,093	100
MA 10 – Riparian Reserves (RRs)	4-106 to 4-114	360 (acreage overlapping LSR land allocation)	32.9
Inventoried Roadless Area		181 (acreage overlapping LSR land allocation)	16.6

*Page numbers from the July 29, 2010 version of the Forest Plan. Accessed online at http://www.fs.usda.gov/main/klamath/landmanagement/planning.

Existing Condition

The Wallow Fire (part of the Salmon August Complex) burned through 65,875 acres in the summer of 2017. Twenty five percent of the Wallow Fire re-burned areas that burned in fires from 2006 and 2008. Fire severity exhibited a mosaic: 26% unburned or very low severity; 29%

low severity; 19% moderate severity; and 26% high severity. Slopes were comprised of heavily timbered areas, oak and other hardwoods, chaparral species, and conifer plantations.

Without treatment, intensely burned forested areas may be slow to recover or may not recover at all. Heavy fuel loading will result from fallen snags. This fuel loading predisposes areas to future higher intensity and severity wildfires that further inhibit conifer regeneration. Stands that were previously dominated by conifers will likely remain in early successional conditions (e.g. brush fields), eliminating a return to mid- to late-successional mixed conifer forests.

Desired Condition

The desired condition is based on Management Area direction. Primarily this project seeks to restock conifer-dominated stands, where appropriate, given the historic variability, aspect, and site class of particular stands. However, the Forest Service also recognizes that hardwood and brush-dominated stands are valuable components of the ecosystem, and the desired condition includes those features where they represent the natural vegetative cover.

The proposed project works toward a desired condition that provides conditions of late-successional forest ecosystems which are enhanced to serve as habitat for late-successional species and continuous areas of multi-layered forests in which high quality habitat characteristics and attributes are common. Desired conditions within riparian reserves in the proposed project area include a variety of vegetation characteristics including: vegetative communities that are in a good ecological condition; a multi-layered vegetative canopy; an overstory of conifers to provide shade and thermal cover to streams; and diverse and dense riparian vegetation for stream bank stabilization.

Project Purpose and Need

The purpose of the project is to facilitate reforestation and reduce fuel loading in National Forest System lands burned during the Wallow Fire (part of the Salmon-August Complex). These activities will promote the establishment of desired conifers in existing plantations and natural stands lost during the fire. Retaining and promoting growth of Late Successional Reserve (LSR) habitat will require both the protection and maintenance of the existing stands of late-successional forest as well as managing young stands for the development of future late-successional habitats. Within the areas proposed for treatment, remaining live conifers are present at stocking densities less than desirable for the area to naturally regenerate. The proposed treatments will aid the establishment of native conifer diversity and forest cover within the burned plantations and natural stands. It will also reduce the amount of hazardous fuels created by fire-related mortality. This project will maintain, protect, and eventually restore conditions of late-successional and old growth forest ecosystems, which serve as habitat for associated wildlife. Treatments designed in this project contribute to these habitat conditions and support the objectives of the LSR management area.

Proposed Action

The proposed action was designed to meet the purpose and need for action. The proposed action would treat about 155 acres within the 1,093 acre project area. The Forest has evaluated site-preparation needs on acres proposed for replanting. Determining factors for selecting these acres

for planting consisted of vegetation burn severity, aspect, site potential, competing vegetation, location on the landscape, potential for natural regeneration, and Forest Plan land allocation.

The proposed treatments include about 94 acres of site preparation activities and planting (including 45 acres within Inventoried Roadless Areas) and about 61 acres of planting without site preparation for a total of 155 treated acres.

Site Preparation (94 acres)
Site preparation to reduce fuel loading and prepare the area for planting would be accomplished by a combination of cutting and handpiling of small diameter conifers and hardwoods (less than 12" dbh) and brush as well as subsequent burning of piles. Additional activities may also include slashing of standing dead material (less than 15" dbh) as necessary. Brush and dead and dying trees will be removed to prepare the site for planting. Where they exist, healthy conifers and hardwoods will be left on site.

Planting (155 acres)
Tree planting (reforestation) would occur by hand methods, using either bare root or container stock. Within treatment stands, planting would only take place in those areas previously stocked with conifers. Since the terrain is very rocky and contains numerous sites that cannot be planted, reforesting by hand will provide for the desired spatial variability within treatment stands and across the project area. Tree species used for planting will roughly correspond with historical stand composition, varying by forest type. An average of 220-300 trees per acre will be planted. Additional planting survival techniques may be used to increase survival of planted trees. These techniques include, but are not limited to: hand grubbing (to release for survival), vexar tubing for browse prevention, and shade blocks for improved microsite conditions.

Project Design Features

Resource specialists on the interdisciplinary team have developed preliminary project design features (PDFs) for this project (Table 2, below). They are put in place as a mechanism to ensure compliance with the National Environmental Policy Act, the Forest Plan, and other applicable laws and regulations. The project design features will be adjusted and may change with the final decision.

Table 2: Project design features categorized by resource.

PDF Title	Description	Applicable Units
Botany-1	Avoid parking equipment and vehicles in weed-infested locations.	Entire Project Area
Botany-2	Equipment will be cleaned of soil, seeds, vegetative matter, and other debris that could contain or hold seeds prior to moving to the project area, after operating within an area with a known site, and after leaving the project area.	Entire Project Area
Botany-3	The Project will be monitored the 2nd and 3rd years after implementation to determine Project Design Feature effectiveness and to quickly respond to any spreading/newly introduced infestations.	Entire Project Area

		Entire Project Area

Appendix A: Project Map